Climate Change and Human Health Literature Portal

National Institute of
Environmental Health Sciences

Hurricane Katrina deaths, Louisiana, 2005

Abstract:

OBJECTIVE: Hurricane Katrina struck the US Gulf Coast on August 29, 2005, causing unprecedented damage to numerous communities in Louisiana and Mississippi. Our objectives were to verify, document, and characterize Katrina-related mortality in Louisiana and help identify strategies to reduce mortality in future disasters. METHODS: We assessed Hurricane Katrina mortality data sources received in 2007, including Louisiana and out-of-state death certificates for deaths occurring from August 27 to October 31, 2005, and the Disaster Mortuary Operational Response Team's confirmed victims' database. We calculated age-, race-, and sex-specific mortality rates for Orleans, St Bernard, and Jefferson Parishes, where 95% of Katrina victims resided and conducted stratified analyses by parish of residence to compare differences between observed proportions of victim demographic characteristics and expected values based on 2000 US Census data, using Pearson chi square and Fisher exact tests. RESULTS: We identified 971 Katrina-related deaths in Louisiana and 15 deaths among Katrina evacuees in other states. Drowning (40%), injury and trauma (25%), and heart conditions (11%) were the major causes of death among Louisiana victims. Forty-nine percent of victims were people 75 years old and older. Fifty-three percent of victims were men; 51% were black; and 42% were white. In Orleans Parish, the mortality rate among blacks was 1.7 to 4 times higher than that among whites for all people 18 years old and older. People 75 years old and older were significantly more likely to be storm victims (P < .0001). CONCLUSIONS: Hurricane Katrina was the deadliest hurricane to strike the US Gulf Coast since 1928. Drowning was the major cause of death and people 75 years old and older were the most affected population cohort. Future disaster preparedness efforts must focus on evacuating and caring for vulnerable populations, including those in hospitals, long-term care facilities, and personal residences. Improving mortality reporting timeliness will enable response teams to provide appropriate interventions to these populations and to prepare and implement preventive measures before the next disaster.

Source: http://dx.doi.org/10.1097/DMP.0b013e31818aaf55

Resource Description

Communication: ⊠

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

 A focus of content

Communication Audience: ⊠

audience to whom the resource is directed

Policymaker

Exposure : ☒

weather or climate related pathway by which climate change affects health

 Extreme Weather Event

Extreme Weather Event: Hurricanes/Cyclones

Geographic Feature: ☒

resource focuses on specific type of geography

 Ocean/Coastal, Urban

Geographic Location: ☒

resource focuses on specific location

 United States

Health Impact: ☒

specification of health effect or disease related to climate change exposure

 Injury

Medical Community Engagement: ☒

resource focus on how the medical community discusses or acts to address health impacts of climate change

 A focus of content

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

 Adaptation

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

 Children, Elderly, Low Socioeconomic Status, Racial/Ethnic Subgroup

Other Racial/Ethnic Subgroup: Black;White

Resource Type: ☒

format or standard characteristic of resource

 Research Article

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content